

## UNDERBALANCED WELL DRILLING AND PRODUCTION

### Abstract of the Disclosure

Underbalanced production and drilling may be achieved by a system which uses a rotating head coupled to surface blowout preventer stack for fluid flow control. A casing  
5 connects these surface components to a subsea shutoff assembly with a pair of ram shear devices to cut off the string to the wellhead. Both the casing and an alternate line may be latched so that they may be released if necessary. The alternate line may provide fluid from the  
10 surface to the subsea shutoff assembly for purposes of varying the density of the returning mud. The rotating head may include a rubber packer to prevent upward flow of drilling fluid and production hydrocarbons and, at the same time, provide rotation to the drill string.